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ONTARIO ARCHAEOLOGICAL SOCIETY
c/o London Museum of Archaeology
1600 Attawandaron Road, London, ON N6G 3M6

OAS

February 2003 03-2

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IT IS TIME TO PAY MEMBERSHIP DUES

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The next meeting of the London Chapter will be Thursday, April 10, 2003. The speaker will be Simon Fraser University doctoral student Tom Arnold. His talk is entitled "***The Ice Free Corridor: Highway to a Hemisphere or Conceptual Cul-de-sac***".

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As always, our meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

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DITHSMITH (ADHK-36): TEST EXCAVATIONS AT A TERMINAL ARCHAIC/WOODLAND SITE

Christopher Ellis and Stanley Wortner

INTRODUCTION

We report here on our July 2001 excavations at the Edithsmith site (AdHk-36). This site is located in an uncultivated area on a large bluff overlooking a bend in the Thames River near Wardsville, Ontario. Some years ago Stanley Wortner discovered cultural material, specifically Onondaga chert flaking debris and fire-cracked rock, eroding out of the edge of the bluff face and accumulating in the talus deposit on the slope of the bluff (see Figure 1).

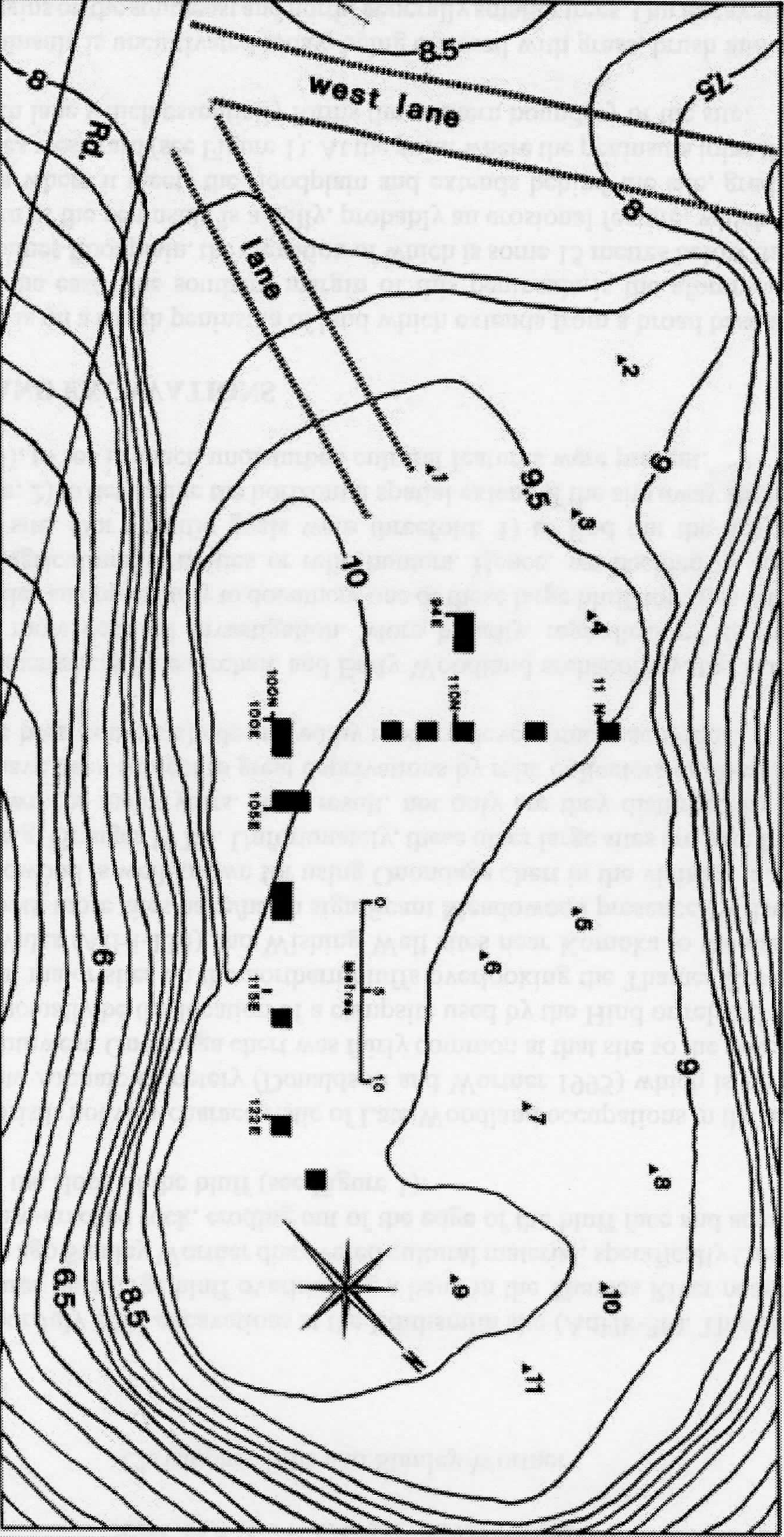
Onondaga chert debris is not very characteristic of Late Woodland occupations in the area. The site is near the Hind Late Archaic cemetery (Donaldson and Wortner 1995) which is on the Thames floodplain to the southwest. Onondaga chert was fairly common at that site so the potential existed that this site might actually be the location of a campsite used by the Hind or related peoples. We also know of several major sites on the northern bluffs overlooking the Thames River floodplain such as the Scott Wales (AfHi-133) and Wishing Well sites near Komoka to the east. Although multi-component, both those sites have/had a significant Meadowood presence (Wilson 1993: 18, 1997:66-67). Meadowood is well known for using Onondaga chert in the vicinity (e.g. Ellis et al. 1988) and beyond (e.g. Granger 1978). Unfortunately, these other large sites are in cultivated fields and have been known for many years. As a result, not only are they disturbed by agricultural activities but they have been subject to great deprivations by relic collectors or alternatively, as at Wishing Well, have been completely destroyed by modern development activities.

Given the authors interests in Late Archaic and Early Woodland archaeology, the Edithsmith site seemed worthy of more detailed investigation. More broadly, regardless of its exact cultural affiliations, it provides an opportunity to document one of these large bluff-top sites which have not been disturbed by agricultural activities or relic hunters. Hence, we decided to carry out test-excavations at the site. Our specific goals were threefold: 1) to find out the age and cultural affiliation of the site; 2) to determine the horizontal spatial extent of the site away from the eroding bluff surface; and 3), to see if intact, undisturbed cultural features were present.

SITE SETTING AND EXCAVATIONS

The Edithsmith site is on a rough peninsula of land which extends from a broad base at the west to a pointed apex on the east. The southern margin of this peninsula is the aforementioned bluff overlooking the Thames floodplain, the elevation of which is some 15 metres below that of the site. The northern margin of the peninsula is a gully, probably an erosional feature, which begins at the tip of the peninsula where it meets the floodplain and extends behind the site, gradually getting shallower as it moves westward (see Figure 1). At the point where the peninsula joins the main body of the bluff is a farm lane which essentially forms the western boundary of the site.

The area of the peninsula is uncultivated today, being covered with grass, brush and except along the peninsula's margins on the southeast and north, generally smaller trees. Our excavations revealed no evidence the site had ever been cultivated. Much of the site centre had been cleared of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trees at some time in the past. Judging by the small size of trees, any land clearing must have occurred about 20 or more years ago.

The area of the peninsula is uncultivated today, being covered with grass, brush and except along the peninsula's margins on the southeast and north, generally smaller trees. Our excavations revealed no evidence the site had ever been cultivated. Much of the site centre had been cleared of trees at some time in the past. Judging by the small size of trees, any land clearing must have occurred about 20 or more years ago.

An excavation grid was superimposed over the site with the main west to east base-line arbitrarily designated 100N and established just north and paralleling the bluff edge (Figure 1). The main north south base-line was established across the centre of the site peninsula and was arbitrarily called 100E. A series of one metre units was triangulated in off these two base lines to give us transects across the site and aid in determining the extent of the cultural deposits present. One metre units were chosen because unlike smaller test units, they would make it easier to expose any encountered subsoil cultural features and get a better idea of their extent and nature. Each metre square was referred to by the intersection coordinates of the east-west and north-south grid lines which met at their southwest corners.

In all we excavated 16 one metre units. The general procedure was to remove the sod and topsoil with shovels and pass the excavated matrix through 1/4" mesh hardware cloth to recover cultural materials. The topsoil tended to be thicker nearer the bluff, ranging as deep as 24 cm but in areas back from the bluff it was generally thinner, not exceeding 13 cm deep in some squares. Once the sod/topsoil had been removed, the subsoil was cleaned by trowelling so that its surface could be examined for features. Bulk samples of excavated features were taken for flotation. If features were not present, we excavated the top of the subsoil down for an additional 10 to 15 cm using shovels and screening in case any artifacts had worked their way down due to natural processes.

In addition to the one metre units, and in order to determine more fully the extent of cultural debris, Wortner excavated a series of what we will call "test units" at various locations over the whole site peninsula (Figure 1). Eleven such test units were opened up and each was numbered sequentially in order of excavation. The test unit locations were tied into the main grid system with a transit. Each unit was roughly 35 by 35 cm in plan size and was taken down to just below the subsoil (ca. 15 to 20 cm deep). As with the one metre squares, all the removed matrix was passed through 1/4" mesh to recover cultural materials.

Overall, all of the one metre units, and all the test units save one, yielded cultural materials. Although the amount of material recovered varied widely from one square/test unit to the next, as we will describe below, the only excavation unit lacking cultural materials was Test Unit # 2 located closer to the western end of the peninsula. Examination of the exposed surface of the laneway itself did not reveal any cultural materials and aside from a few scattered flakes, no cultural material was visible on a cultivated field to the west. Our work suggests the site is confined almost exclusively to the peninsula but that the whole peninsula of land has cultural debris which in some areas, was very dense. For example, Test Unit #10 at the northeast edge of the site (Figure 1) contained so much fire-cracked rock (over a kg was recovered from this small unit alone) that it was difficult to get the shovel in the ground.

ARTIFACTUAL MATERIALS

A large number of items were recovered during the test excavations of the site. Most of this material was historic debris (e.g. brick or tile fragments and square-headed nails), fire-cracked rock or stone flaking debris. This material was sorted but was not catalogued individually. Given the large amounts of this material recovered, it was simply maintained in separate labelled unit bags for each category. We do include two tables (Tables 1 & 2) which list the frequency of this material in each excavation or test unit. Only ceramic sherds, stone tools and faunal material was assigned actual catalogue numbers and the location of these items are shown on Table 3. We describe all the recovered material in the following sections.

Stone Artifacts

Projectile Points

A total of two relatively complete finished points were recovered. Both are on Onondaga chert. One is a very well-made and complete Adena point with the classic lobate stemmed base (Figure 2a; see Ritchie 1971:12). This item measures 50.8 mm long by 32.4 mm wide by 8.5 mm thick. The stem is 19.4 mm long and 20.7 mm wide at its juncture with the point fore-section and has basal thinning on one face. The point is plano-convex in transverse section, slightly curved in longitudinal section and a small unflaked area occurs on the plano and curved face in the centre of the stem. These characteristics strongly suggest the point was made on a smallish flake not much bigger than the finished product. Adena points date to ca. 2300 B.P. and are often associated with a terminal Early Woodland "Middlesex Phase" (e.g. Ritchie and Dragoo 1960) even thought the origin and reality of such a phase has been questioned since it is based largely on mortuary assemblages (see Parker 1997; Spence et al. 1990:138). Most certainly it seems to represent an Early Woodland non- and perhaps post-Meadowood use of southern Ontario.

A second point is a small corner-notched form which is missing the tip (Figure 2d). This point measures only 19.9 mm wide and 5.4 mm thick and had to be under 25-30 mm in overall length. It has a neck width across the notches of 10.1 mm. The small size and outline shape mark the point as a clear example of a Terminal or Late Archaic "Smallpoint" assignable to the Crawford Knoll type of ca. 3500 B.P. (Kenyon 1980a, 1989; Kenyon and Snary 2002; Snary 2000).

Other Flaked Stone Objects

The remaining flaked stone artifacts are also all on Onondaga chert but with two exceptions are largely non-descript. These include four tiny biface tips or edge segments, three scraper/uniface fragments and two simple retouched /used flakes. One exception is a bifacially flaked end scraper (Figure 2c). Although broken at the proximal end by a snap, this item is made on a well-made, narrow (23.3 mm), thin (5.7 mm), triangular biface or cache blade. A steep unifacial retouch has been applied across the base to form the end scraper bit. End scrapers at the base of cache blades/bifaces are most characteristic of Early Woodland assemblages (Ellis et al. 1988; Ozker 1982:104-105; Parker 1997:132) and this is by far the most likely affiliation for this object. Given the thin, well-made nature of the item, we think it much more likely that it is Meadowood in derivation rather than being associated with stemmed Kramer/Adena point related assemblages and as such should date to ca. 2800 to 2300 B.P.

Table 1: Distribution of Fire Cracked Rock & Flaking Debris, Edithsmith Site.

Square	Context	Frequency of FCR	FCR Weight (Gms)	Flaking Debris Frequency	Flaking Debris Weight
100N/100E	Topsoil/Sod	108	828	169	63.79
100N/101E	Topsoil/Sod	139	1337.2	205	72.1
100N/101E	Feature 3 (Rodent Burrow)	5	9.2	1	0.04
100N/104E	Topsoil/Sod	161	1887.1	249	147.36
100N/104E	Subsoil Cleaning	18	278.8	6	2.73
100-101N/104E	Feature 1B (west half)	89	1485.6	44	25.53
100N/109E	Topsoil/Sod	331	1732.4	327	124.15
100N/110E	Topsoil/Sod	201	2012.8	159	88.93
100N/109-110E	Feature 2 Cleaning	775	1773.6	29	6.74
100N/116E	Topsoil/Sod	182	1239.5	82	34.1
100N/122E	Topsoil/Sod	75	476.8	81	48.64
101N/104E	Topsoil/Sod	122	956.6	241	102.66
102N/125E	Topsoil/Sod	190	1248.2	76	41.97
106N/100E	Topsoil/Sod	33	356.7	198	108.9
108N/100E	Topsoil/Sod	79	985.6	442	176.29
110N/94E	Topsoil/Sod	150	586.8	122	41.18
110N/95E	Topsoil/Sod	114	824.7	118	63.46
110N/100E	Topsoil/Sod	83	542.8	74	41.66
114N/100E	Topsoil/Sod	129	660.1	90	39.56
118N/100E	Topsoil/Sod	54	549	83	24.77
Test Unit #1	Topsoil/Sod	3	24.1	3	0.36
Test Unit #3	Topsoil/Sod	3	27.9	2	1.96
Test Unit #4	Topsoil/Sod	8	38.7	5	1.51
Test Unit #5	Topsoil/Sod	10	72.3	13	5.85
Test Unit #6	Topsoil/Sod	17	237	7	1.68
Test Unit #7	Topsoil/Sod	3	9.6	4	0.45
Test Unit #8	Topsoil/Sod	10	48.2	1	0.34
Test Unit #9	Topsoil/Sod	11	88.3	2	0.88
Test Unit #10	Topsoil/Sod	51	1096.3	49	27.94
Test Unit #11	Topsoil/Sod	5	6.7	5	2.18
	Totals for Site:	3159	21420.6	2887	1298.52

The second exception may be simply an unfinished biface preform (Figure 2b). It measures 35.6 mm long by 23.3 mm wide by 7.1 mm thick. Triangular in shape with a slightly convex base, it has a thick unflaked segment along one edge near the base. Apparently the knapper was incapable of reducing this thickness point so it was discarded before completion into a point. Given it size and outline shape it is possible that this is a preform for a Late Woodland triangular point form and this would suggest site use in the ca. 1000 to 500 B.P. period. However, examination of the item microscopically shows there is a distinct rounding or grinding of the edges. Along the lateral edges this dulling is less well-developed and intermittent at places, suggesting that it may be simply remnants of grinding the edge as platform preparation for manufacture. The base though is more dulled and across its whole width and under the microscope appears more polished and brighter than the dulled portions of lateral edges. Although not as pronounced a polish as we have seen on other examples, this polish and the overall shape and size is very reminiscent of "strike-a-lights" used with iron pyrites as parts of fire-making kits by Early Woodland peoples (Ellis et al. 1988; Ozker 1982:105; Ritchie 1955). Certainly Early Woodland groups could have used the site as suggested by the end scraper on cache blade described earlier and this potential strike-a-light was recovered from the same square as the Adena Early Woodland point noted above. In terms of workmanship, being thick and less finely worked, it does seem closer to the Adena/Kramer point associated forms rather than the Meadowood examples we have examined. On the other hand, a Late Woodland body sherd (see below), was recovered from the eroded bluff face just south of this find area so there was definitive use of the site during that time period as well.

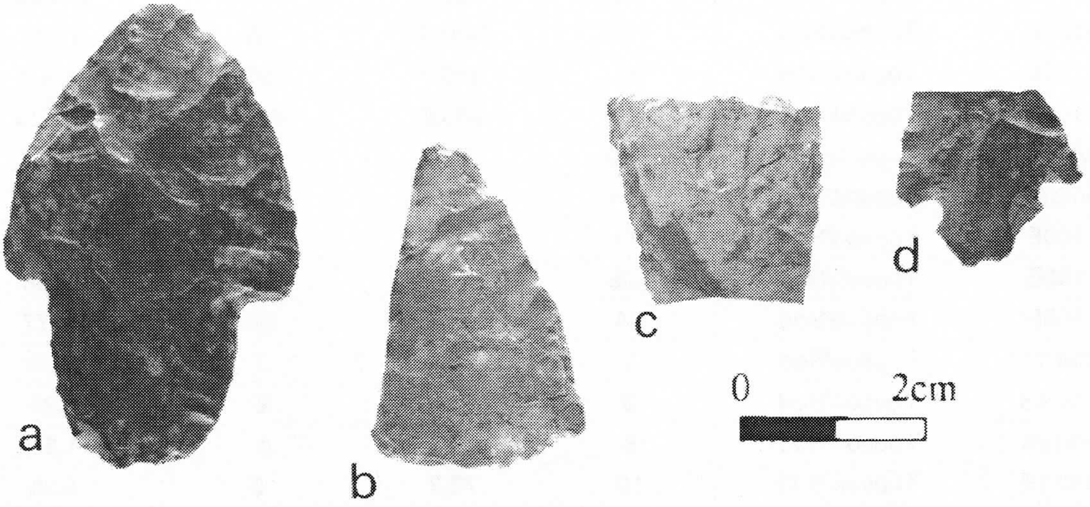

Figure 2: Bifaces. a) Adena Point (Early Woodland); b) preform/possible strike-a light; c) end scraper on cache blade (Early Woodland); d) Crawford Knoll Point (Late Archaic).

Flaking Debris

Excluding three Onondaga chert popout flakes produced by heating, the flaking debris recovered from the site included 2887 pieces weighing 1298.52 grams. Of this total, 2796 or 96.8% came from the 16 metre squares excavated and the remaining 91 or 3.2% came from the isolated test units (Table 1).

This debris was sorted by raw material and the various kinds or types of such debris present (see Tables 4 & 5). The following debris types and classes were recognized following largely White (1963) and Frison (1968) who introduced such terms into the North American literature:

1) Primary Decortation Flakes: This refers to items which have completely unflaked dorsal surfaces and must be the initial removals from that area of the core;

2) Secondary Decortation Flakes: These are items which have partially unflaked dorsal surfaces and can not be the initial removals from the core;

3) Tertiary Flakes: These are items which have completely flaked dorsal surfaces and represent removals from areas of the core that had been previously flaked. Excluded from the category are retouch flakes (that is flakes which can be assigned to the reduction of specific tool classes such as biface or uniface; see below), shatter, and simple flake fragments;

4) Shatter and Blocky Fragments: These are thick, angular fragments lacking platforms or bulbs of percussion. Shatter is often seen as a by-product of flint knapping activities, usually due to raw material collapse during core reduction (Binford and Quimby 1972). However, it is difficult to separate out that kind of material from fragments of thick flakes which simply collapsed during flake detachment or were produced by breakage in trampling so the term blocky fragment, which is a more descriptive designation, seems more appropriate. Regardless of specific origin, all items in this category likely are by-products of core reduction as one expect even larger and thicker flakes to be more common during the earlier stages of manufacture;

5) Biface Retouch Flakes: These are thinning and finishing flakes produced during the reduction of bifacial objects such as points. They can be recognized by a combination of features including: highly prepared, faceted and acute-angled, platforms; bi-directional to centripetal to complex flake scar orientations as bifaces have multiple and often somewhat opposed platforms; a thin cross-section; and some degree of gentle flake curvature (see Bordes 1961; Deller and Ellis 1992:80-86; Frison 1968);

6) Uniface/Scraper Retouch Flakes: These are small, usually quite curved, expanding flakes produced during the retouching or resharpening of unifacial tool edges (see Frison 1968:150; Jelinek 1965; Shafer 1970). They have flat platforms which are an old section of the unmodified uniface underside and platforms which are also right-angled since they are from the edge of steeply retouched tools. Adjacent to the platform of the dorsal surface they can have damage which in some cases is probably due to previous use of the old tool edge. In assemblages where there is extensive core reduction as opposed to simply tool edge retouch and resharpening, it can be very difficult to separate out such flakes from smaller tertiary flakes with right-angled and flat platforms. Hence, we only included items in this category here where we felt very confident of the assignment to uniface edge retouch/resharpening and relegated most such small flakes to the tertiary flake category noted above;

7) Flake Fragments: This category is simply a grab-bag one containing flakes too fragmentary to assign to the previous types and classes.

Table 2: Frequency of Historic Debris, Edithsmith Site.

Square	Context	Brick/Tile/ Crockery Fragments	Nails	Glass	Historic Ceramics	"Clinkers"	Metal Fragments
100N/100E	Topsoil/Sod	2	-	-	-	1	-
100N/101E	Topsoil/Sod	5	-	-	-	1	-
100N/104E	Topsoil/Sod	3	1	-	-	-	-
100N/116E	Topsoil/Sod	1	-	-	-	-	-
100N/122E	Topsoil/Sod	-	-	-	2	-	-
101N/104E	Topsoil/Sod	-	3	-	-	-	-
102N/125E	Topsoil/Sod	3	-	-	-	1	-
106N/100E	Topsoil/Sod	2	-	-	-	-	-
108N/100E	Topsoil/Sod	1	-	-	-	-	-
110N/94E	Topsoil/Sod	2	1	-	-	-	-
110N/100E	Topsoil/Sod	5	-	-	-	-	-
114N/100E	Topsoil/Sod	23	-	1	-	-	1
118N/100E	Topsoil/Sod	3	-	3	-	-	1
Test Unit #1	Topsoil/Sod	3	-	-	-	-	-
Test Unit #3	Topsoil/Sod	1	-	-	-	-	-
Test Unit #8	Topsoil/Sod	1	-	-	-	-	-
	Totals for Site:	55	5	4	2	3	2

As was the case with the tools and tool fragments, the flaking debris, either considered as a whole or by specific type is dominated by Onondaga chert (Table 5). The whole sequence of Onondaga reduction from core to tool retouching or resharpening, as represented by biface thinning flakes and uniface retouch flakes, seems to be present. The rarity of primary or even secondary flakes, however, as well as the small size of core reduction flakes (the tertiary flakes for example are only minimally larger than the biface thinning flakes), suggests that material may have been somewhat reduced already when brought to the site or that the original masses selected for reduction at the lithic sources were very small.

Examination of the unflaked surfaces of primary and secondary flakes indicates that although material from bedrock outcrops is present, most Onondaga flakes (34/49 or 69.4%) have the battered and tumbled surfaces characteristics of secondary deposits. Also, the Onondaga debris has lots of brownish mottling indicating a high limestone content which is more characteristic of secondary deposits. Examination of Table 5 shows that flakes from core reduction, such as secondary and tertiary flakes are also quite small. Assuming that the small size is not solely a product of extensive reduction of masses prior to being carried to the site, this size also suggests use of secondary pebble or cobble deposits as opposed to the massive blocks known to occur at primary outcrops. On the other hand, as noted earlier, the rarity of primary, and especially secondary, flakes does suggest most of the material was quite reduced prior to being brought to the site. Of course, such initial reduction could have happened in site areas unexcavated or untested or just off site to keep the presumed living or camping areas clear of debris.

Table 3: Artifact Catalogue for Numbered Items.

Cat. #	Date	Type	Square/Unit	Context
1	July 26/01	Adena point	101N/104E	Topsoil/Sod
2	July 26/01	Triangular preform or strike-a-light	101N/104E	Topsoil/Sod
3	July 26/01	Small sherd	101N/104E	Topsoil/Sod
4	July 25/01	11 small sherds	100N/100E	Topsoil/Sod
5	July 26/01	Onondaga chert biface fragment	100N/104E	Subsoil cleaning (interface)
6	July 26/01	Onondaga chert biface fragment	100N/101E	Topsoil/Sod
7	July 26/01	4 small sherds	100N/101E	Topsoil/Sod
8	July 26/01	Body sherd (Late Woodland)	South of 102E pin	Eroded out of bluff face
9	July 26/01	Bone fragment	110N/95E	Topsoil/Sod
10	July 26/01	End Scraper on cache blade base	110N/94E	Topsoil/Sod
11	July 26/01	3 small sherds	110N/94E	Topsoil/Sod
12	July 26/01	Bone fragment	110N/94E	Topsoil/Sod
13	July 25 & 26/01	9 small sherds	118N/100E	Topsoil/Sod
14	July 23/01	Onondaga chert biface tip	100N/104E	Topsoil/Sod
15	July 23/01	3 bone fragments	100N/110E	Subsoil cleaning (Feature #2)
16	July 23/01	Small sherd	100N/110E	Subsoil cleaning (Feature #2)
17	July 23/01	3 small sherds	100N/116E	Topsoil/Sod
18	July 23/01	Onondaga chert uniface fragment	100N/116E	Topsoil/Sod
19	July 23/01	Onondaga chert uniface fragment	100N/116E	Topsoil/Sod
20	July 24/01	Crawford Knoll point	100N/122E	Topsoil/Sod
21	July 23/01	3 small sherds	106N/100E	Topsoil/Sod
22	July 27/01	Onondaga chert biface fragment	Test Unit #5	Topsoil/Sod
23	July 26/01	Small sherd	100N/109E	Topsoil/Sod
23	July 26/01	Small sherd	100N/109E	Topsoil/Sod
24	July 23/01	Kettle Point retouched flake	100N/110E	Subsoil cleaning (Feature #2)
25	July 25/01	Onondaga chert retouched flake	100N/100E	Topsoil/Sod
26	July 25 & 26/01	Onondaga chert scraper fragment	118N/100E	Topsil/Sod

Deposits of Onondaga chert occur in the till and as river cobbles throughout southwestern Ontario including the general site area (see, for example, Kenyon 1980b: Figure 4) and it is even possible, although unsubstantiated, that this material could be procured in the river beside the site. However, if the material was local, one would expect there to be a relatively high percentage of other kinds of cherts or unidentifiable sources which would also be encountered in the till and would also expect Onondaga to be predominant at other sites in the area. As noted above, a real focus on Onondaga is not characteristic of Late Woodland sites in the same area. It is possible, therefore, that even the secondary Onondaga materials were obtained from deposits closer to the bedrock outcrops where more of the till and other secondary deposits would be made up of Onondaga pebbles and this would be consistent with the absence of extensive evidence for earlier stages of reduction such as the rarity of primary and secondary flakes – decortation occurred largely elsewhere. It is also possible that the focus on Onondaga is deliberate. As noted above, the majority of stone artifacts suggest Early Woodland site use and the preference for Onondaga chert, especially among Early Woodland Meadowood peoples, is well known (e.g. Ellis et al. 1988).

Table 4: Distribution of Waste Flakes by Raw Material.

Debris Type	Onondaga	Kettle Point	Selkirk	Coarse-Grained	Unknown	Totals
Biface Thinning	401 (96.6%)	9 (2.2%)	2 (0.5%)	2 (0.5%)	1 (0.2%)	415
Uniface Retouch	11 (84.6%)	-	1 (7.7%)	-	1 (7.7%)	13
Primary	7 (100%)	-	-	-	-	7
Secondary	42 (89.4%)	4 (8.5%)	1 (2.1%)	-	-	47
Tertiary	495 (97.2%)	5 (1.0%)	-	7 (1.4%)	2 (0.4%)	509
Shatter & Blocky Fragments	96 (91.4%)	2 (1.9%)	-	-	7 (6.7%)	105
Flake Fragments	1573 (87.8%)	9 (0.5%)	2 (0.1%)	198 (11.1%)	9 (0.5%)	1791
Totals	2625 (90.9%)	29 (1.0%)	6 (0.2%)	207 (7.2%)	20 (0.7%)	2887

As for the other materials, as noted above, most of this material is present in trace amounts. Debris on coarse-grained rocks such as sub-greywacke, siltstone, slate, etc. is the only other common material but it accounts for only around 7% of the assemblage (Table 4). Most of the coarse-grained debris is simply flake fragments due to the fact flake diagnostics like platforms, bulbs, etc. do not readily form on such materials. The only two biface thinning flakes amongst this coarse-grained debris were large sub-greywacke flakes. Such a material was often used for biface production by pre-contact groups. Although best known from Late Archaic Broadpoint sites, evidence of use of sub-greywacke extends from Paleo-Indian to Middle Woodland times (Deller and Ellis 1992:87; William Fox: personal communication; Kenyon 1980b) so it is not particularly diagnostic. Kettle Point chert is present in only trace amounts and it is the only material which can be definitely considered to be exotic to the area. However, and with the caveat sample size is quite small, again the whole range of lithic reduction, from core knapping to biface retouch, seems to be represented amongst that material.

Table 5: Distribution of Flaking Debris by Weight.*

Debris Type	Onondaga	Kettle Point	Selkirk	Coarse-Grained	Unknown	Totals
Biface Thinning	156.40 (0.39)	2.27 (0.25)	1.47 (0.74)	14.81 (7.41)	0.15 -	175.20 (0.42)
Uniface Retouch	1.57 (0.14)	-	0.14 -	-	0.24 -	1.95 (0.23)
Primary	31.78 (4.54)	-	-	-	-	31.78 (4.54)
Secondary	80.96 (1.93)	10.69 (2.67)	6.24 -	-	-	97.89 (2.09)
Tertiary	278.40 (0.56)	1.04 (0.21)	-	26.65 (3.81)	2.05 (1.25)	308.14 (0.61)
Shatter & Blocky Fragments	84.89 (0.88)	2.95 (1.48)	-	-	6.65 (0.95)	94.49 (0.90)
Flake Fragments	504.39 (0.32)	2.23 (0.25)	0.52 (0.26)	78.27 (0.40)	3.66 (0.41)	589.07 (0.33)
Totals	1138.49 (0.43)	19.18 (0.66)	8.37 (1.40)	119.73 (0.58)	12.75 (0.64)	1298.52 (0.45)

*numbers in brackets are average weight per item.

As for the other materials, as noted above, most of this material is present in trace amounts. Debris on coarse-grained rocks such as sub-greywacke, siltstone, slate, etc. is the only other common material but it accounts for only around 7% of the assemblage (Table 4). Most of the coarse-grained debris is simply flake fragments due to the fact flake diagnostics like platforms, bulbs, etc. do not readily form on such materials. The only two biface thinning flakes amongst this coarse-grained debris were large sub-greywacke flakes. Such a material was often used for biface production by pre-contact groups. Although best known from Late Archaic Broadpoint sites, evidence of use of sub-greywacke extends from Paleo-Indian to Middle Woodland times (Deller and Ellis 1992:87; William Fox: personal communication; Kenyon 1980b) so it is not particularly diagnostic. Kettle Point chert is present in only trace amounts and it is the only material which can be definitely considered to be exotic to the area. However, and with the caveat sample size is quite small, again the whole range of lithic reduction, from core knapping to biface retouch, seems to be represented amongst that material.

Fire-Cracked Rock

A large amount of fire-cracked rock, including over 3000 pieces weighing in excess of 21 kg, was recovered during our investigations (Table 1). This material was found in every test-unit and excavated square save the sterile test Unit #2. As will be discussed more below, the amount of this material present varied considerably across the site surface.

Ceramics

Forty ceramic body sherds were recovered in our excavations. All sherds were small being under 25 mm across. Moreover, almost all of these sherd were so small and heavily damaged (e.g lacking one or both of preserved interior or exterior surfaces) that they can tell us very little about the timing of Woodland occupations at the site. There are three exceptions.

One exception, measures some 25 mm across at its maximum dimension. It is large enough to determine that it was from a well-made vessel that had a smooth, undecorated, interior and exterior. Given its thinness (6.7 mm) and well-made nature, it most likely dates to later in the Late Woodland use of the site location (ca. 500 B.P,). Unfortunately, this item was not found in an excavated unit but rather, was collected from the talus slope just south of the 102E grid pin.

Two other exceptions measure only about 20 mm across but do have preserved exterior and interior surfaces and are relatively thick (9-10mm). Both were recovered from the same square as the cache blade made into an end scraper (110N/94E; e.g. in the centre of the site back from the bluff edge) and are probably from the same, relatively well-made, vessel. They have exterior cord-marking and a somewhat smooth interior and clearly seem to be from an early Late Woodland vessel (Neal Ferris, personal communication; David G. Smith, personal communication). It is possible that some of the remaining very small and exfoliated sherds are also Late Woodland but they could just as easily could relate to earlier Woodland occupations.

Historic Artifacts

Seventy-one items of EuroCanadian manufacture were recovered of which most were brick/tile or probably in a few cases, crockery fragments. None of these are particularly diagnostic but all of the nails are cut, square-headed forms indicating probable use, albeit minimally, in the 19th Century.

FEATURES

Three possible cultural features were located and these were assigned sequential numbers in order of discovery. Upon excavation, one of these (Feature #3 from square 100N/101E) appeared to be a large post mould of ca. 18 cm in diameter. However, when subsequently cross-sectioned it proved to be the entrance to a rodent burrow.

A second feature (Feature #2) was initially encountered in the west edge of 100N/110E and was subsequently found to extend into the adjacent square 100N/109E, its centre straddling almost exactly the 110E grid line at the juncture of the two squares. The feature proved very difficult to discern given the soil dryness and its subsoil surface had to be scraped down considerably into the subsoil (some 10-15 cm below the topsoil) before its outline was made apparent. During this cleaning over 775 pieces of FCR, weighing just over 1.75 kg (Table 1), were recovered as were three small unidentifiable calcined bone fragments and a micro-sherd – the latter confirms a Woodland assignment of the feature but can tell us little else. The actual number of pieces of FCR is inflated for this feature as amongst the rocks burned was a shale-like form which had crumbled into a large number of thin segments. This can be readily appreciated by the fact the average weight of each fragment is only 2.28 grams as opposed to an average weight in the other definite feature encountered (Feature #1b; see below) which was 16.7 gms. The feature cleaning also yielded 29 waste flakes (including 28 on Onondaga chert and one on a coarse grained rock), which weighed 6.74 gms, and among which were three biface thinning flakes, one primary flake, eight tertiary flakes and 17 flake fragments. A single Onondaga chert popout flake, probably produced by heat exposure, was also recovered. The feature, when finally fully exposed in plan, had an irregular outline and most of the FCR appeared to be concentrated around the edges. It measured 60 cm east to west by 70 cm north to south. Although photographed in plan view, time constraints prohibited our doing plan drawings or even excavating the exposed feature remnant. Therefore, we covered it with plastic and backfilled the squares to preserve the remnant for future excavation projects.

The last feature assigned a number was #1, encountered in square 100N/104E and was subsequently determined to extend into the adjacent square to the north which was also excavated (101N/104E). When the subsoil surface was cleaned off, the subsoil anomaly resolved itself into three separate features which we assigned the labels 1a, 1b and 1c as exposed.

Feature 1a, located at the east side of square 101N/104E (Figure 3) was almost exactly circular in shape and 16cm in diameter. When cross-sectioned it had very straight sides and extended as deep as we could excavate it in the time available (50 cm). There is no doubt it is a post. Its diameter and depth are as large as support posts reported for some precontact support posts, as in even Middle Woodland structures (e.g. Wright and Anderson 1963:11-15) but it seems most likely to us that it was an historic fence post and especially since three of the five historic nails were found in the same square (101N/104E) as the post and a fourth was in the adjacent square to the south (100N/104E; Table 2). Also, a fence paralleling the bluff edge may have been installed at some point in the past which would be consistent with this post's location.

Feature 1c was a definite precontact cultural feature which extended 37 cm out from the east wall of square 100N/104E (Figure 3). At the east wall of the square it was 63 cm wide and there is no doubt it extended into the adjacent, unexcavated square. Several pieces of FCR were visible in Feature 1c at the topsoil/subsoil interface. Again, time constraints prohibited excavation of this feature so after being drawn and photographed in plan view it was covered with plastic and backfilled to protect it for future work.

The final feature was #1b. This feature was elongated with rounded ends and a slight constriction near the centre. The feature was bisected almost exactly by the 101N grid line and measured 125 cm north to south by 56 cm east to west (Figure 3). Clear charcoal and ash concentrations were visible in plan view as were pieces of FCR. This feature was excavated and in profile proved to be a shallow basin extending down to 20 cm into the subsoil (Figure 3). Half the feature (west half) was excavated with trowels and other fine tools and screened in the field. It yielded 89 relatively large pieces of FCR weighing almost 1.5 kg (Table 1) and literally a bag of charcoal which could be easily identified and used to date the feature by radiocarbon. Forty-four waste flakes were found in the excavated feature fill but no diagnostic artifacts were found. However, the Adena point and the possible preform or strike-a-light on Onondaga were found in the topsoil of the overlying square 100N/104E so it is probably Woodland in age and may even be late Early Woodland. The waste flakes weighed 25.53 gms and included ten biface thinning flakes, two secondary flakes, six tertiary flakes, one piece of shatter/blocky fragment and 25 unassignable flake fragments. Most of the flakes were on Onondaga chert (31/44) but 12 items on coarse-grained rocks (all of which are simple fragments), and one Kettle Point chert biface thinning flake, were also included. The other half of the feature was taken as a bulk sample for flotation to recover smaller materials. As of this writing it has not been processed.

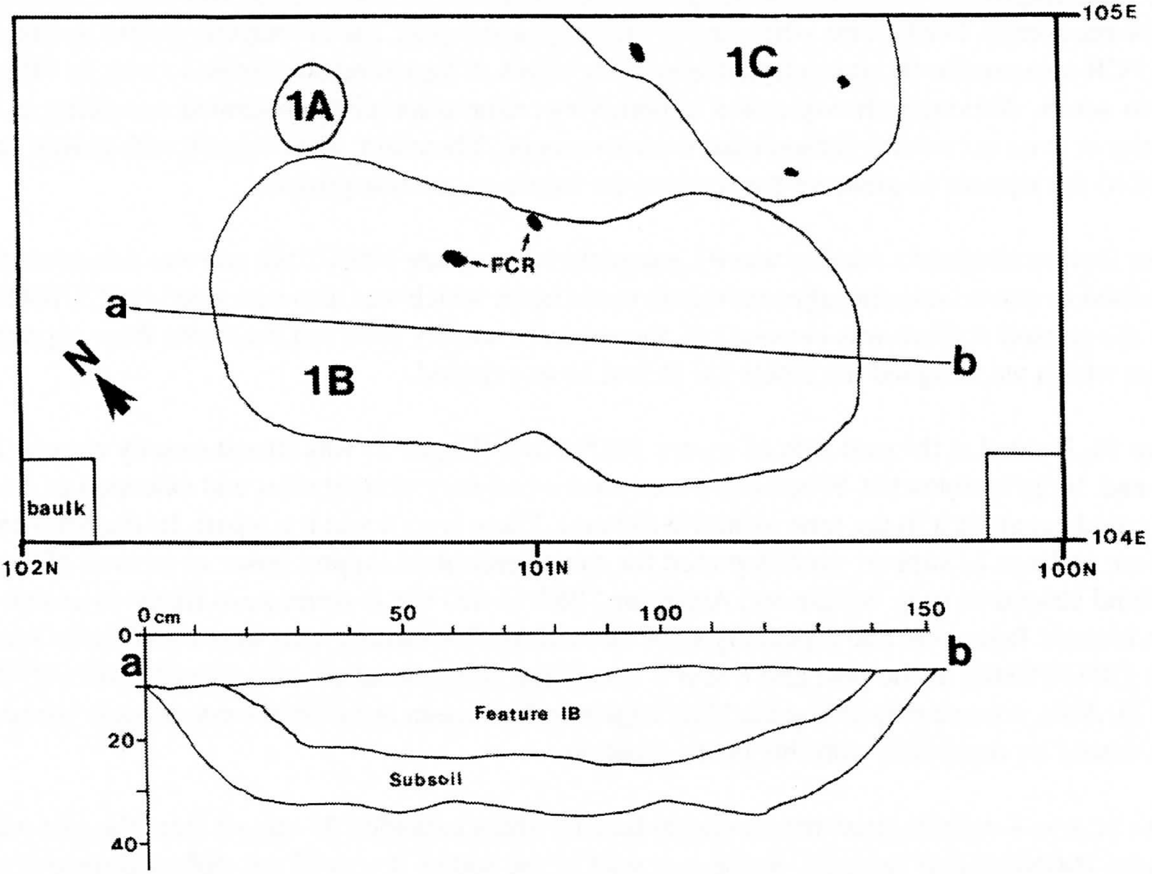

Figure 3: Feature 1a, 1b, 1c Plan Views and Feature 1b Profile.

SPATIAL DISTRIBUTIONS

Given that such a small area was excavated, it is difficult to say much about the spatial distribution of artifacts. Morever, the site is multicomponent and it is very possible that even the material from within certain sub-divisions, such as the Early Woodland, may represent several occupation episodes. In these cases, overlap of different occupations of use during different time periods would greatly confound any spatial patterning in the organization of activities that may have existed during any one occupation of the site. Nonetheless, some suggestive patterns are notable and can be mentioned here.

As previously noted, cultural material was found in every opened unit, one metre unit or test unit alike, excepting Test Unit #2 at the northwest corner of the peninsula on which the site was located. As no materials were noted on the exposed laneway surface to the west, the site seems to be confined to the peninsula area. As such, the site covers some 60 m from grid east to west by 25 m from grid north to south or roughly 1500 m^2. Within this area this is variability in the frequency of certain kinds of information. All features were located in squares paralleling the bluff (100N/104E; 100N/109E; 100N/110E). Although one can not rule out that this may be due to sampling error and especially since only a few squares were dug across the peninsula to the north, it is possible that over time activities involving pit use were concentrated in areas closer to the bluff.

As shown on Table 1, the densest concentrations of fire-cracked rock in the topsoil sod (e.g. in weights exceeding 1.5 kg per one metre unit) were in the same squares as the features (e.g. 100N/104E; 100N/109E; 100N/110E). The function of these pits are unknown. They were not hearths because even though the pits themselves contained fire-cracked rock, ash, and charcoal, there was no evidence of fire-reddened soil and they often contained unheated chert artifacts and debris. It is possible that the pits served for different functions before serving simply as debris dumps into which one could toss fire-cracked rock, ash, flint chips and other debris. Although there was some fire-cracked rock in the topsoil sod of virtually every square, use of pits as debris dumps does suggest some attention to site maintenance or cleaning during at least some occupations and such attention is indicative of a relatively long term use during particular occupations. Only sites used for some period of time need such maintenance to keep living areas free of debris or need employ specialized debris disposal.

Although no hearths were encountered during the excavations, the density of fire-cracked rock, and the fact at least some of it was not specifically disposed of in features, suggests the activities in which such materials would be most likely produced, such as stone-boiling or burning in hearths, was nearby or in bluff areas as well. In this regard it is notable that all squares across the site centre extending back from the river bluff had much less in the way of fire-cracked rock or less than one kg per one metre unit. The only other area with high densities of fire-cracked rock was Test Unit #10 (Table 1) but that is also near the site edge, albeit in this case, on the interior bluff formed by the ravine backing the site (Figure 1). However, several other units such as Test Units #8 and #11 were also in those ravine edge areas and yet, do not have much in the way of fire-cracked rock. In fact, Test Unit #11 had the lowest yield of this material of all the test units. The dense concentration in Unit #10 could therefore relate to use during a specific occupation as opposed to the norm throughout much of the site use of disposing of fire-cracked rock nearer the bluff edge. If activities such as stone boiling or cooking hearths were consistently placed near the bluff edge, it might relate to mundane considerations which transcended all the occupations. For example, the area on the bluff may have been exposed to more breezes during the warmer months which minimized the heat exposure from cooking or dispersed insect pests or smoke from fires better. Or such a location may have provided a better overview for monitoring the floodplain for game or other people while seated around the fire or involved in common domestic activities.

In terms of other artifact categories, only flaking debris is present in any kind of quantity. Perhaps not surprisingly, some of the greatest concentrations (>240 per one metre unit) are located in squares near the bluff containing the Feature #1a-c cluster (100N/104 E and 101N/104E; see Table 1) and Feature #2 (100N/109-110E) and since the same squares also have large amounts of FCR and thus, relatively high ratios by weight or frequency of FCR by flaking debris (see Table 6), this might also support the idea such feature locations were simply used as debris dumps. However, and althogh most squares away from the bluff have relatively small amounts of debris (<100 per one metre unit) the highest density per metre unit of debris is in a square back from the bluff in the site centre (108N/100E; see Table 1) where 442 flakes were recovered. Conversely, this is also a unit with little FCR (Table 1) and a low FCR/debris ratio (Table 6). This spotty distribution of debris in the interior areas and its different distribution from the FCR suggests that unlike the bluff areas, it may not represent collective debris dumps and may correlate more with use during only specific time periods.

Table 6: Ratio of Fire-Cracked Rock to Flaking Debris in Topsoil/Sod Only.

Square	Context	FCR/Debris Ratio by Frequency	FCR/Debris Ratio by Weight	Location/ Feature
100N/100E	Topsoil/Sod	0.63	12.98	Bluff on River/No Feature
100N/101E	Topsoil/Sod	0.67	18.55	Bluff on River/No Feature
100N/104E	Topsoil/Sod	0.65	12.81	Bluff on River/ Feature 1B-C
100N/109E	Topsoil/Sod	1.01	13.95	Bluff on River/ Feature 2
100N/110E	Topsoil/Sod	1.26	22.6	Bluff on River/ Feature 2
100N/116E	Topsoil/Sod	2.22	36.34	Bluff on River/No Feature
100N/122E	Topsoil/Sod	0.93	9.8	Bluff on River/No Feature
101N/104E	Topsoil/Sod	0.51	9.32	Bluff on River/ Feature 1B-C
102N/125E	Topsoil/Sod	2.5	29.74	Bluff on River/No Feature
106N/100E	Topsoil/Sod	0.16	3.27	Interior/No Feature
108N/100E	Topsoil/Sod	0.18	5.59	Interior/No Feature
110N/94E	Topsoil/Sod	1.22	14.23	Interior/No Feature
110N/95E	Topsoil/Sod	0.97	12.99	Interior/No Feature
110N/100E	Topsoil/Sod	1.12	13.02	Interior/No Feature
114N/100E	Topsoil/Sod	1.43	16.69	Interior/No Feature
118N/100E	Topsoil/Sod	0.65	22.16	Inside Bluff/No Feature

CONCLUSIONS

The test excavations at the Edithsmith site has allowed us to address the basic questions which we sought examine through the research. The work at the site has succeeded in demonstrating that, as we suspected, Late Archaic and Early Woodland components are present in what is essentially an undisturbed site although traces of Late Woodland occupation are also present. However, the Late Archaic materials, while falling within the Smallpoint Tradition, resemble more Crawford Knoll than Hind points and the Early Woodland includes Adena as well as the expected Meadowood. The site has intact features and covers the whole peninsula – it is very large and the excavated one metre units and test units suggest very high densities of material are present in some areas. The high densities along the central bluff of debris, FCR and tools/sherds may represent use over a long period of time (e.g. multi-component) and which are notoriously difficult to sort out for analytical purposes. However, the presence of intact features which may represent more short-term events raise the potential of sorting out some of the components even in that area. Moreover, high densities in more localized areas back from the bluff in either flaking debris (e.g. 108N/100E) or FCR (e.g. Test Unit #10) may reflect more limited use during certain specific time periods and be worthy of future attention.

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Treasurer's Annual Report, London Chapter OAS, 2002

Item	Expenditures	Revenues	Totals
Total Bank Balances as of January 1/02			8,895.41
Total Bank Balances as of December 31/03*			6,848.45
London Chapter Memberships & Sale of *Kewa* Back Issues		1,430.14	
Book Publication Sales		286.67	
Total Revenues		**1,716.81**	**√ 1,716.81**
Kewa Printing	667.70		
Postage and Supplies (Envelopes and Labels) for Kewa and Book Sales	606.29		
Bounced Cheque and Bank Charges	52.00		
Speaker Dinners, Christmas Party and Juice/Cookies	130.63		
New Account Book	10.31		
Printing: Caradoc Monograph	2296.84		
Total Debits	**3763.77**		**√ -3763.77**
Bank Balance as of January 1, 2002			8,895.41
Revenues for 2002			+1,716.81
Total			10,612.22
Expenditures for 2002			-3,763.77
Book Balance as of December 31, 2002 [1]			6,687.90
Bank Balances as of December 31, 2002			6,848.45
Total Loss for 2002[2]			2,046.96
Inventory: I-Expo Display System		Feb. 7/03	Chris Ellis

*The London Chapter maintains two bank accounts: one for memberships and one for book publications. As of December 31/02, the balances of these accounts were, respectively: 471.76 and 6376.79 = $6,848.55.

[1]: Two cheques, written in 2002 and totalling $160.55, are in the books but had not been cashed as of December 31/02. The expenses for the year used here only reflect expenses charged to the bank account as of December 31/02.

[2]: Based on bank balances at start and end of year. The loss is exaggerated because of the printing of the Caradoc monograph late in the year and that loss will be made up by future sales of the inventories of those books. The membership account alone is a better measure of our financial status this year. Taking into account all membership related costs (Kewa printing and mailing, refreshments, speaker dinners, etc. and focussing solely on membership fees and Kewa back issue sales as our only income [e.g. excluding book publication sales]), we had a loss on the year of only $36.79. In other words, and as is usually the case in recent years, we broke about even.